

REMARKS

The Official Action of 24 January 2008 has been carefully considered and reconsideration of the application as amended is respectfully requested.

The claims have been amended to remove the bases for the rejections under 35 USC 101 and 35 USC 112, second paragraph. Support for the amendments appears in the specification as filed at, for example, page 2, second and third full paragraphs, which describe the combination of four DNA bases (ATGC) to form units for DNA based computing.

The invention defined by the claims as amended covers a physical transformation of tangible things (nucleotides) into polynucleotides (units) to process and store information. Since the claims cover the processing and storage of tangible things (nucleotides) to produce a real world result, they are directed to statutory subject matter. Moreover, the claims as amended are respectfully believed to be free of the informalities noted at paragraph 9 of the Official Action and are otherwise believed to be sufficiently definite to satisfy the dictates of 35 USC 112, second paragraph.

Claims 1, 3, 4 and 6 remain rejected under 35 USC 103(a) as allegedly being unpatentable over Butland. Applicants respectfully traverse this rejection.

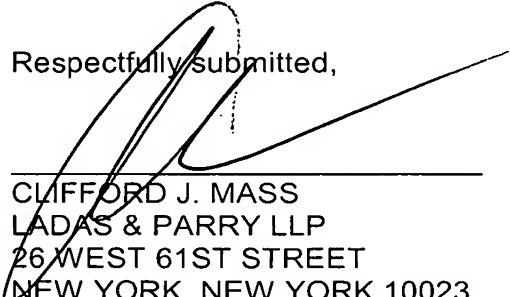
The invention defined by the claims as amended is directed to a computing device and process which use a DNA based number system, wherein

the **value** of the DNA bases in a polynucleotide is positional. In contrast, in the cited reference, DNA bases are used for character representation and the reference does not show or suggest that the DNA bases described therein have a **value** that is "positional".

The Examiner contends that Table 2 of Butland makes clear that the sequence of bases determines what is encoded and that the position of each base in the sequence thus provides information. However, Applicants respectfully submit that this is insufficient to show the claim limitation, which requires that a **value** of the base in the claimed number system is based on its position in the polynucleotide. In the absence of anything in the reference to show or suggest this claim limitation, Applicants respectfully submit that the reference cannot set forth even a *prima facie* case of obviousness for the invention as claimed.

In view of the above, Applicants respectfully submit that all rejections and objections of record have been overcome and that the application is now in allowable form. An early notice of allowance is earnestly solicited and is believed to be fully warranted.

Respectfully submitted,



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